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Subject Environmental Defense comments on C.I. Pigment Yellow 14  
(CAS# 5468-75-7)

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Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for **C.I. Pigment Yellow 14 (CAS# 5468-75-7)**.

The Diarylide Pigments Committee (DPC) of the Color Pigments Manufacturers Association, Inc., in response to EPA's High Production Volume (HPV) Chemical Challenge, has submitted a test plan and robust summaries for C.I. Yellow Pigment 14.

Data for various related chemicals, C.I. Pigments Yellow 12, 13 and 83, are proposed to address most of the required SIDS elements for the C.I. Pigment Yellow 14. Examination of the chemical structures of all four chemicals considered in this submission indicates that the structures of C.I. Pigments Yellow 12 and 13 are very similar to that of C.I. Pigment Yellow 14 and are appropriate surrogates. The third surrogate proposed, C.I. Pigment Yellow 83, shares most structural components with C.I. Pigments Yellow 14, but possesses chlorine atoms on the two dimethoxyphenyl rings. It is very well-established that chlorination may very significantly alter the chemical/physical properties, persistence and toxicity of a chemical. Thus, C.I. Pigment Yellow 83 should not be considered an appropriate surrogate for C.I. Pigment Yellow 14. Removal of C.I. Pigment Yellow 83 from the list of surrogate chemicals does not present a very large problem, however, because the only SIDS element not addressed by data available for one or more of the other surrogates is that for Toxicity to Aquatic Plants.

Review of the robust summaries indicates that appropriate surrogate data are available for most of the required SIDS elements. However, these data are poorly summarized in the test plan. Discussion of actual studies in the test plan is frequently cursory and the surrogate pigment for which the data were actually developed is frequently not identified. Specific comments are listed below.

#### Specific comments:

1. When data are "obtained from a reputable journal" as stated in the test plan, it would seem obvious that the reference should be provided in the text and list of references. That is not done in all cases.

2. On page 3 of the test plan, under biodegradation, most of the second sentence is missing.
3. The common name for C.I. Pigment Yellow 12 is not given along with the structure on page 7 of the test plan.
4. At several points in the test plan, toxicity is said to have been tested at "the water solubility". A more correct phrase would be "at the limits of water solubility".
5. Pigments are frequently not pure compounds. If C.I. Pigment Yellow 14 and its surrogates are the exception to this generalization, that should be noted. If they are impure, then the purity of the respective chemicals should be discussed in the test plan. (The relevance of this request is seen on page 8 of the test plan, where we note that the toxicity and color observed in the test animal tissues are said to be "likely" attributed to monoazo impurities of some yellow pigments.)
6. A computer glitch has resulted in showing a value for the water solubility of these pigments on page 7 of the test plan that could be misleading. It appears that the water solubility of these pigments is <20 g/l, whereas data provided in robust summaries indicates it is approximately 0.02 mg/l.
7. If C.I. Pigment Yellow 14 and its surrogates are going to be referred to by their common names throughout the test plan, then the respective common names should also be provided along with the chemical names in the robust summaries.
8. The matrix of required SIDS elements and data or estimates provided on page 3 of the test plan claims that studies are available to address each of these elements and that no further work is required. This matrix does not, however, indicate whether these elements are addressed by estimated or extrapolated data from the surrogate pigments. The use of estimated and/or surrogate data should be clearly identified in this matrix.

In summary, data developed for two of the proposed surrogate chemicals, C.I. Pigments Yellow 12 and 13, but not the third, C.I. Pigment Yellow 83, can be appropriately used to address the required SIDS elements for C.I. Pigment Yellow 14. At least minimal studies are described for these chemicals to address each of the required elements except Toxicity to Aquatic Plants, which still needs to be addressed. Therefore, on completion of a study of Toxicity to Aquatic Plants and some badly needed revision of the test plan, this submission would be minimally acceptable to meet the requirements of the HPV Challenge.

Thank you for this opportunity to comment.

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